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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,921	01/10/2006	Heidrun Steinhauser	DPQ-005US	8774
959 7590 12/10/2007 LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER BREVAL, ELMITO	
			ART UNIT 2879	PAPER NUMBER
			MAIL DATE 12/10/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/539,921	Applicant(s) STEINHAUSER, HEIDRUN	
	Examiner Elmito Breval	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/12/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Amendment*

The Amendment, filed on June 16, 2005, has been entered and acknowledged by the Examiner.

Claims 1-9 are pending in the instant application.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1, 3-6, 8, and 9** are rejected under 35 U.S.C. 102(e) as being anticipated by Oda et al., (hereinafter "Oda")(US. Pub: 2002/0063538).

**Regarding claims 1, 8 and 9**, Oda discloses (in at least figs. 7 and 8) a display device comprising a cathode ray tube, the cathode ray tube having an electron gun (7, fig. 7) comprising: a pre-focusing lens portion (G3, fig. 8) for generating a pre-focusing lens field, and a main lens portion ([0071]), for generating a main lens field (L2), characterized in that the electron gun (7) further comprises an additional grid (GM1, fig. 8), being positioned in proximity with said main lens portion, whereby a potential (B1) is arranged to be applied to said additional grid (GM1, fig. 8), for generating, together with one of the potentials Vfoc or Vdyn (Ec6), an additional lens field (L1) in proximity with said main lens field, whereby, in operation, the main

lens field and the additional lens field is arranged to cooperate to form an effective main lens field (fig. 8; [0071], [0072]).

**Regarding claim 3**, Oda discloses a display device of claim 1, wherein said main lens portion comprises a distributed composed field lens, whereby the potential ( $E_{c3}$ ) applied to said additional grid (fig. 8) is equal to a potential applied to an intermediate grid of the distributed composed field lens, wherein the voltage is within the range of 40% to 60% (fig. 8; [0056]).

**Regarding claim 4**, Oda discloses a display device as in any one of the claims 1-3, wherein the additional lens field ( $L_1$ ) generated by the additional grid (fig. 8) is arranged to an astigmatic lens (fig. 8).

**Regarding claim 5**, Oda discloses a display device as in claim 1, wherein said electron gun (7) further comprises a dynamic astigmatism and focus (fig. 8), and said additional grid (fig. 8) is arranged between the dynamic astigmatism and focus portion and the main lens portion (fig. 8).

**Regarding claim 6**, Oda discloses a display device as in claim 1, wherein said electron gun (7) further comprises a dynamic astigmatism and focus portion, and said additional grid (fig. 8) is arranged between the dynamic astigmatism and focus portion and the pre-focusing lens portion, in close proximity with the dynamic astigmatism and focus portion (fig. 8).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Oda et al., (hereafter "Oda")(US. Pub: 2002/0063538) in view of Toujou (US. Pub: 2002/0130608).

**Regarding claim 2**, Oda discloses a display device as in claim 1, wherein a pre-focusing lens portion comprises a first electrode (G1) and second electrode (G2), and providing a potential (Ec3) applied to said additional grid, but fails to disclose the potential of the additional grid is equal to the potential applied to said second electrode (G2), the potential being in the range of 350-1500V, preferably about 700V.

However, Toujou in the same field of endeavor teaches a cathode ray tube wherein the potential of the additional grid (electrode 5, fig. 1A) is equal to the potential applied to said second electrode, the potential being in the range of 350-1500V, preferably about 700V (paragraph [0036]) in order to improve the display quality of the device.

Given the teaching of Toujou, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cathode ray tube of Oda with the additional grid potential as taught by Toujou in order to improve the display quality of the device.

**Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Oda et al., (hereafter "Oda")(US. Pub: 2002/0063538) as applied to claim 1 above, and further in view of Uchida et al., (hereinafter "Uchida")(EP: 1014417).

**Regarding claim 7**, Oda discloses a display device as in claim 1, but fails to expressly disclose the electron gun (7) further comprising a dynamic beam forming section (DBF).

However, Uchida in the same field of endeavor teaches a cathode ray tube wherein the electron gun further comprises a dynamic beam forming section (fig. 1) in order to achieve high display resolution.

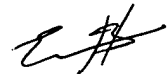
Given the teaching of Uchida, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the dynamic beam forming section as taught by Uchida into the cathode ray tube of Oda in order to achieve high display resolution.

### **Conclusion**

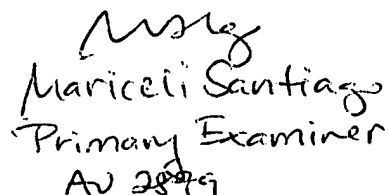
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elmito Breval whose telephone number is 571-270-3099. The examiner can normally be reached on M-F (8:30 AM-5:00 Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571)-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



November 25, 2007  
Examiner  
Elmito Breval



Mariceli Santiago  
Primary Examiner  
AU 2879